ISLANDS PARTICULARITIES IN **MARINE POLICY**

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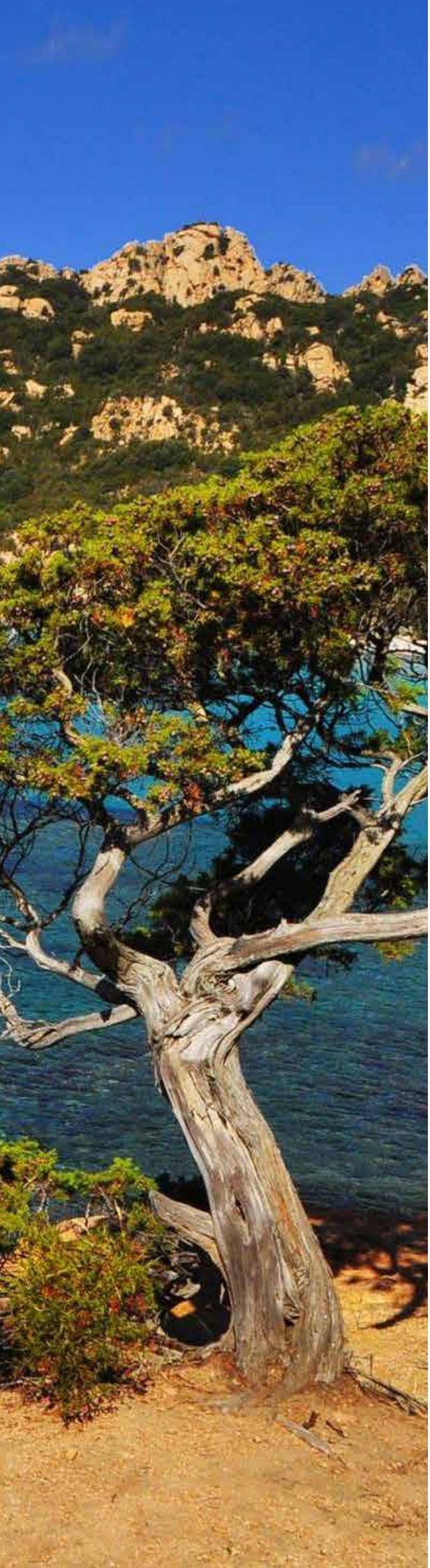

INTRODUCTION

This document is prepared by the Decentralized Administration of Crete and its external expert Ydronomi consulting engineers.

The document focuses on the particularities of islands in Marine Policy implementation according to the European Directive 2008/56/EC (Marine Strategy Framework Directive).

It presents the reflections of the Decentralized Administration of Crete for the application of Marine Policy in Crete, of CTC (Collectivité Territoriale de la Corse) for the application of Marine Policy in Corsica and of Larnaca District Development Agency for the application of Marine Policy in Cyprus.

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THE MARINE STRATEGY FRAMEWORK DIRECTIVE

The Marine Strategy Directive 2008/56/EC, which is the environmental pillar of the Integrated Maritime Policy, requires the application of the ecosystem approach to the management of human activities, covering all sectors having an impact on the marine environment. The main objective of the Directive is to protect and improve the marine environment till 2020. In order to accomplish this objective it stipulates:

- The appreciation of the marine environmental status
- The proposition of measures and plans for the improvement of the environmental status of marine ecosystems
- The implementation of these measures
- The long term monitoring of marine ecosystems
- The periodical revision of measures and plans

The marine ecosystems are influenced by the pollution of land based activities and marine activities (marine transport, fishing, aquaculture etc.). Many marine ecosystems are also influenced by more than one countries and international transport and fishing activities. Therefore the Marine Strategy Framework Directive proposes specific tools:

- A unified marine surveillance system
- Homogeneous monitoring of the marine environment in Europe and neighbouring countries
- International cooperation for the creation of a common European coastal and marine cartography
- Common/unified databases on marine ecosystems, pollution monitoring etc.
- Creation of Marine Special Protection Zones (protection from land based activities, as well as from fishing activities, aquaculture and marine transport) which should be respected in international level.

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The implementation of the directive in Crete

The first step for the implementation of the Marine Strategy Directive has almost been completed in Greece (April 2013) (preliminary analysis of the characteristics of marine ecosystems, predominant pressures and impacts and proposition of environmental targets), according to the application law N.3983/2011.

This first step was carried out in national level, by the Ministry of Environment Energy & Climate Change, Special Secretariat for Water and external experts. The Region of Crete and the Decentralized Administration of Crete participated as advisors. They will be more actively engaged in the implementation process of the proposed plans and measures and in the future revisions of these plans and measures.

The implementation of the directive in Corsica

The first step for implementation of the Marine Strategy Directive has almost been completed in Corsica, under the national effort. In this general, national approach, preliminary analysis of the characteristics of marine ecosystems, predominant pressures and impacts are still summarized in a very general way. This gives a large, but low precision, appreciation of the marine environmental status and allows only very generic propositions of environmental targets.

Despite the fact that Mediterranean French coastline has been considered separately, great differences exist between the mainland Mediterranean coastline and the corsican island. Preliminary analyses must be developed and adapted to island particularities.

The implementation of the directive in Cyprus

Cyprus adopted this Directive in November 2010 and entered into force on 15 January 2011 (Marine Strategy Law 2010). The Department of Fisheries and Marine Research under the Minister of Agriculture Environment and Natural Resources is the main responsible of the implementation of maritime policy.

Larnaca Distrtict Development Agency is mainly advisor for Larnaca's municipalities and communities.

THE PARTICULARITIES OF ISLANDS **IN MARINE STRATEGY**

The particularities of islands in the implementation of the Marine Strategy Directive can be grouped in five categories:

- Geographical isolation which it prevents/discourages the economic development and raises the cost of life
- Limited natural resources, , which have to be used with precaution
- Unique natural environment, with small scale habitats, many endemic species and many migratory species, which need special protection
- Extrovert economy, with tourism, agricultural products exports and marine commerce being important sources of income
- International waters, which surround the islands and are used for marine transport and fishing and cannot be controlled by the local authorities, but where important pollution incidents can take place.

All the above mentioned particularities make the implementation of the Marine Strategy Framework Directive a real challenge.

Geographical isolation

Crete

The island of Crete is positioned 160 Km from the Greek mainland and 320 Km from Athens/Piraeus, which is the main port/gate for importing/exporting most commercial products.

This geographical isolation makes many products more expensive in Crete and discourages the installation of important production activities. Economies of scale are difficult to implement because of this geographical isolation.

For example all special machinery/equipment that is necessary for the mapping and monitoring of the marine environment, has to be moved from Greek mainland to Heracleion (the main port of Crete) and then to the sampling/ measuring station. The same is true for the necessary vessels; they have to be moved from other locations to Cretan waters. Vice-versa, many samples will have to be sent back to Athens for the necessary laboratory analysis.

The geographical isolation also makes the necessary manpower more expensive and especially the necessary marine environment experts. Most specialized personnel will have to travel to Crete, from the mainland, whenever necessary unless permanent job positions are created.

In a more general way, for every investment and development project, the geographical isolation is a limiting factor. Introducing other limiting factors, as restrictions of land use, fishing quotas, protected areas, will reduce even more the potential of the local economy for development. Therefore, any restrictions that will be necessary for the implementation of the Marine Strategy will have to be taken with caution and will have to take in consideration the local needs for economic development.

Corsica

Corsica has the same geographical isolation compared with Crete, located 180 km from the nearest mainland point. Most of remarks, done here upper for Crete, are real facts in Corsica. For instance, concerning the local scientific potential to do the necessary development of marine environment knowledge adapted to the island, research institutions are sized more on the island population (350 000 inhabitants) than the length of the coastline (1 000 km coastline which is comparable to length of the French mainland mediterranean coastline but for several million inhabitants). Despite help of national institutions to produce environmental data, this creates real difficulties to get good adapted environmental diagnosis in the short delays imposed by the Marine Strategy Directive.

Nevertheless, good collaborations between regional environmental administrations (Collectivité Territoriale de la Corse with its agency Office de l'Environnement, Agence de l'eau RMC, etc.) and local research institutions (University of Corsica, Stella Mare, Stareso, Ifremer, BRGM, etc.) has allowed to produced a good database on the island that need to be more collected, developed, intercalibrated and summarized. To reach efficiently the Marine Strategy Directive targets, these local efforts must be helped and funded by national and European funds, taking into account the size of the work to be accomplished (length of the coastline).

Cyprus

Cyprus as a country - island, positioned in the top right hand corner of the Mediterranean and at the South Eastern corner of Europe, located between Europe, Asia and Africa, rightly claims to be a stepping-stone to three continents. It is situated at the north-eastern corner of the Mediterranean, at a distance of 300 km north of Egypt, 90 km west of Syria, and 60 km south of Turkey. Greece lies 360 km to the north-west (Rhodes-Karpathos).

Cyprus is in the middle of the Levantine basin. This basin, as a result of its relative isolation, is characterised by a higher degree of endemism

Cyprus is the third largest island in the Mediterranean (after Sicily and Sardinia) with an area of 9,251 square km and 772 Km of shoreline of which 404 Km are in the occupied areas, 72 Km within the Sovereign British Base areas, and only 296 Km within the area controlled by the Government of Cyprus.

Cyprus is an independent, sovereign Republic with a presidential system of government. The President exercises executive power through a Council of Ministers. The Legislative power in the Republic of Cyprus is exercised by the House of Representatives. Cyprus is divided into six administrative districts. Each district is headed by a District Officer, a senior civil servant appointed by the Government responsible for the coordination of all Ministries in its district and accountable to the Ministry of Interior.

At the local administrational level, areas around major urban (and tourism-based) residential populations fall under the jurisdiction of Municipalities, with smaller rural villages and settlements managed through Local Authorities (until recently termed "Village Boards" or "Improvement Boards"). Communities (or Local Authorities) are broadly equivalent in terms of function to municipalities, although structurally different.

The responsibilities of Local Authorities cover public health; construction and maintenance of roads; collection and disposal of waste; cleaning, lighting, and naming of roads; And regulation of trade and business, as well as the promotion of the area. Local Authorities issue by laws, which are subject to central government approval. The Village Commission has basic duties, while the District Office provides all the necessary services for the Community.

Limited natural resources

Crete

Every island, has limited natural resources. The most limited precious natural resource in Crete is fresh water. Crete has high mountains and an average of 480 mm of precipitation every year but is has no rivers with permanent flow (only torrents and streams) and a very dry summer (three months with practical no rain). As a result the aquifer is under tremendous pressure and it is over pumped mainly for irrigation purposes but also for serving the needs of the urban centers and the touristic areas.

Currently, Crete disposes of four river dams (a fifth is under construction) and ten small reservoirs concentrating rain water. All these works are used for irrigation purposes, only one dam and one reservoir is used also for urban water supply.

Aquifer overexploitation and rainwater detention means that less fresh water reaches the coastal and marine ecosystems. River outlets have no flow for several months and river sediment yield is reduced. Sea water intrudes in coastal aquifers. These are major interventions in the coastal habitats. Fortunately, for the time being, the percentage of fresh water and sediment trapped in the dams and reservoirs is very small (less than 5%) in Crete and the repercussions in the coastal and marine ecosystems are still very limited, but it is an important factor to be taken in consideration for future plans and programs.

Another limited resource is sediment. Crete, as many islands, faces erosion problems. Coastal erosion is caused by human induced factors as the construction of river dams and the construction of coastal works and it is also caused by natural factors as the wave climate. Having no swallow sea beds near the coast, all sediment eroded to the sea is taken towards the deep waters. Erosion is an important threat for coastal ecosystems.

A different limited resource is land. Crete is the fifth largest island in the Mediterranean with a population density of 75 inhabitants per square kilometer. However, most activities/cities are concentrated on the north coast putting enormous pressure on the coastal and marine ecosystems. The land use issues on the north coastline are a real challenge as the environment protection should not be in contradiction with the economic development of the island.

Finally a resource that was thought to be in abundance is fish and other marine organisms. Today we know that the fish reserves in the Mediterranean are in constant decrease. Although Crete is an island, today only 0.3% of the population is employed in the fishing, aquaculture and relative fish

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processing activities. Small traditional fishermen villages are now either deserted or they have become summer vacation destinations. With the current European Fisheries Policy which discourages new fishing activities, and the Mediterranean fish reserves in depletion, future fishing activities are expected to be limited. However more measures are necessary in order to protect coastal ecosystems from amateur fishermen and scuba divers whom continue to fish in swallow waters with no real police mechanism.

The implementation of the Marine Strategy Directive will necessitate actions in order to repopulate Cretan coastal waters with sea life.

Corsica

Corsica suffer less than Crete from limited resources in fresh waters because of its quite small population, its low industrial and agricultural development and the high mountains that collect rains and snows in great quantities during the winter. Anyway, rapid increase of the touristic summer frequentation may induce indirect problems such as, for instance, reduction or pollutions of transitional or coastal waters.

Coastline erosion exists in Corsica, mainly along the east coast but it is limited by the large presence of rocky coasts. It is anyway an important threat.

For coastal marine environment the main limited resource is the small space due to the very narrow continental shelf. In Corsica, the sea bottom drops quickly to several hundred meters. As a consequence, most activities (fisheries, summer recreational activities, amateur fishermen, diving, yachting, etc) are concentrated on a very narrow coastal environment. This situation induces many threats. Despite a quite small professional fishermen population with very small boat, data shows important cases of overfishing particularly where the continental shelf is very narrow. Amateur fishermen that target particular catch may also induce cases of overfishing on these species. Anchoring of the great number of small and large yachts in summer, on shallow water and very fragile biocenosis such as Posidonia beds cause more and more destruction every year. This start to be one of the main threats on the west and south coast. Development of aquaculture becomes quite impossible because this activity (that may produced an important economic development for the island) is in competition for space with touristic activities.

The implementation of the Marine Strategy Directive will necessitate actions in order to regulate activities on the Corsican shelf and stop the increased damages on fragile biocenosis.

Limited natural resources

Cyprus

In Cyprus water resources are limited and drought incidents occur frequently as well as the increasing demand of water as a result of population growth, tourism development, and increased standard of living. Being a small island, Cyprus has to rely solely on its own available sources of water, which are extremely limited. Eighty percent of surface runoff in Cyprus is generated by the Troodos mountains. Cyprus has an intense Mediterranean climate with rain mainly falling between October and May. The predominantly clear skies and high sunshine amounts result also in high evaporation rates. The Water Development Department (WDD) has estimated that approximately 86% of the annual precipitation is lost to evapotranspitation. Due to the rainfall conditions, surface water is confined to only a few months a year. Cyprus has been acknowledged by EU as a different independent ecoregion. The main differentiating points are the following:

- There are only shallow, narrow, mostly mountainous rivers with mostly lotic character;
- There are no continuous rivers, but only rivers with continuous flow at certain parts. Out of 206 designated river water bodies, only 17 were designated as type R2: large rain volume with a continuous flow;
- There are no natural fresh water lakes, only highly managed reservoirs with wide water

level fluctuations (11 designated, type L4) and storage basins (one designated, type L5);

Water is still not enough to satisfy the increasing water demand, while the depletion of water resources became more evident. Due to the limited supply of surface runoff in Cyprus, groundwater has traditionally provided the resource needed for domestic use and irrigation. Throughout the years, the groundwater resources of the island have been heavily overpumped, especially during periods of drought. It is estimated that groundwater resources are overexploited by about 40% of the sustainable extraction level. The existing conditions have resulted in saline water intrusion and consequent quality deterioration in coastal aquifers and depletion of inland aquifers. Seawater intrusion in aquifers has also resulted in spoiling valuable underground water storage room. Furthermore, intensive agriculture and excessive use of fertilizers have resulted in nitrate pollution of many aquifers. Similar nitrate pollution problems appear in aquifers in inhabited areas because of direct sewage disposal in adsorption pits.

Another problem that Cyprus is facing is the increased frequency and intensity of droughts during the last 30 years. Furthermore, the level of precipitation has decreased during the last century.

All these reasons make Cyprus a highly complex environment for water resource management. To ensure an adequate and continuous supply of water for the people of Cyprus, the storage of water has always been an important issue.

Furthermore the main forces that are acting on the ecological equilibrium of the Cyprus seas are:

- Fishing and overfishing, in particular with trawlers but also with many other methods, in shallow waters.
- Urban and tourism development of the coastal zone, which impacts habitats and species

Significant parts of the land use in the coastal areas have been traditionally agriculture. Since 1996 most of the agricultural areas has been transformed into tourist zones. Because the value of the coastal land has risen significantly due to the land uses change, coastal defense actions have become a necessity: erosion is causing a significant loss to the owners of coastal land and has negative impacts on beach quality.

The coastal area of Cyprus is under pressures from economic/urban development particularly tourism, recreation, urban and infrastructure development and, to a lesser extend, agricultural and industrial development. Indeed, the rapid socio-economic growth of Cyprus, especially in the 1980s, beside its desired effects, has also caused strains on the natural fabric of the coastal area.

Conflicting and competitive demands for coastal space have also become one of the country´s primary environmental problems. Many problems are a direct reflection of pressure on scarce land resources in the areas adjoining the coast. [The land width of the coastal zone, established at 2 Km from the coastline, covers 23% of the total area of the country. About 40% of the population lives and works in this zone.]

The most serious coastal planning problems today relate to the sudden expansion of the main coastal urban centres of Li-

massol, Larnaka and Paphos and have mostly been caused by the type and speed of development. From a survey of a coastal stretch of 181 Km., in 1973 development along the coastal zone was only 22 Km. urban, 9 Km. suburban/tourist and 150 Km. pristine. Serious problems are also appearing in the coastal zone outside urban areas with the rapid encroachment of development of tourism facilities and holiday homes in natural/ pristine areas.

Unique natural environment

Crete

The island geographical isolation and its mountainous geomorphology have created unique natural habitats. These ecosystems are of small scale and they host rare endemic species as well as migratory species. Crete disposes of many Natura 2000 protected sites that include coastal waters and small (less than 8<hectares) ecosystems that include transitional coastal waters.

These unique ecosystems are an advantage for the island as a tourism destination but they also limit all activities that can be developed in those areas. The unique ecosystems make all Marine Policy procedures more complicated: more areas to be characterized, more information to be gathered, more monitoring to be done, more targets to be achieved.

The protected areas are less populated, they produce less income and on the other hand demand resources for their monitoring and protection. The municipalities by their own are not able to finance the necessary measures for the monitoring and protection of protected areas.

Corsica

Remarks done for Crete here above are all true for Corsica. France established in Corsica one of the most important group of Natura 2000 national marine protected area because the good environmental preservation on the island. Corsica counts also several natural sea reserves including large international reserves and reserve with UNESCO quality label.

The good environmental preservation produces tourism attractiveness and potential for economic development but, on the other hand, it also produces the need for management that limit this development and increases the inherent public costs.

The implementation of the Marine Strategy Directive will necessitate plans and actions in order to establish an efficient balance between the necessary economic development based on the attractiveness of a high quality environment and the necessary limitations and inherent costs to maintain environment quality and reach the best ecological state by 2020.

Cyprus

Cyprus has a high diversity of habitats and species, ranging from semi-desert habitats to peat grasslands, and pine and oak forests in the mountains (European Commission, 2010). Being an island with varying landscape and relative isolation, it has a high rate of endemic species that are unique to the island. The European Commission has included 61 Natura 2000 sites in Cyprus, covering flora and fauna species and habitats. In order for 'good environmental status' to be achieved, an investigation of the dam watersheds that are listed as Natura 2000 sites is vital.

It is important, for the holistic management of water resources, to know which dams are located within Natura 2000 sites and the extent to which their watersheds contain each site type. The position of a dam that drains a given watershed area and what happens within that area in terms of water and ecology is important for decision makers. Building a dam obstructs flow from reaching the ecosystems downstream, as well as the

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aquifers that are recharged from the river bed. Therefore, not only the occurrence of Natura 2000 areas within the upstream watershed should be examined, but also the sites downstream of the dams. The lack of flow affects the biodiversity of downstream areas and if an area is a Natura 2000 site this makes the needs for water in that area more severe and the management of the dam more complex.

Cyprus is in the middle of the Levantine basin. This basin, as a result of its relative isolation, is characterised by a higher degree of endemism. Its salinity and the temperature regime of its surface waters, which is higher than the rest of the Mediterranean and its highly oligotrophic nature, result in a relatively high species diversity and very low biomass. This is very apparent in its benthos, the study of which requires an unusually high number of grab samples to be statistically valid. In the sea around Cyprus Posidonia oceanica thrives in extensive meadows at depths of about 10-30 metres. In shallower waters - usually between 3- 10 metres - on soft substrates, Cymodocea nodosa predominates, while in deeper waters Caulerpa prolifera and Halophyla stipulacea abound. Pinna nobilis thrives here, in these deeper waters.

The oligotrophic nature of the area enhances the clarity of its waters and photosynthesis is possible at considerable depths. Recent changes in this regime are discussed briefly lower down. The warm waters of the region and of the coastal zone in particular support turtle nesting on its beaches.

The continental shelf is generally narrow, and can be very narrow (1-2 km) in other areas, especially the north coast. The seabed is generally of soft substrates, with sand giving way to muddy sand and mud in deeper waters, in the main bays and in much of the south and eastern coasts. Off the main capes, on the west coast and on much of the north coast the seabed is mainly rocky in shallow waters (down to about 50 metres) with patches of coarse sand in places. Invariably lower down this grade into mud.

It is sufficiently isolated to allow the evolution of a strong endemic flowering element. At the same time, being surrounded by big continents, it incorporates botanological elements of the neighbouring land masses. About seven percent of the indigenous plants of the island - 140 different species and subspecies - are endemic to Cyprus.

The conservation of the island's forests has multiple objectives, such as the conservation of biological diversity, the protection of the soil against erosion, the control of floods, and the protection of water resources. The Troodos mountain range is of particularly high ecological significance, not only because it contains rich plant and avian diversity, but also because it feeds most river basins and aquifers of the island, with maximum precipitation of 1000 mm/year.

The forests of Cyprus are an important national resource. They provide timber and non-wood products and contribute significantly to the beauty of the landscape, the preservation of the national heritage, the protection of water supplies, and contribute to the economic development of village communities.

A different resource is land. Cyprus is the third island in the Mediterranean with a population density of nearly 90 inhabitants per square kilometer. The land development in the coast and inland should not affect in a way of imposing enormous pressure on the marine ecosystem.

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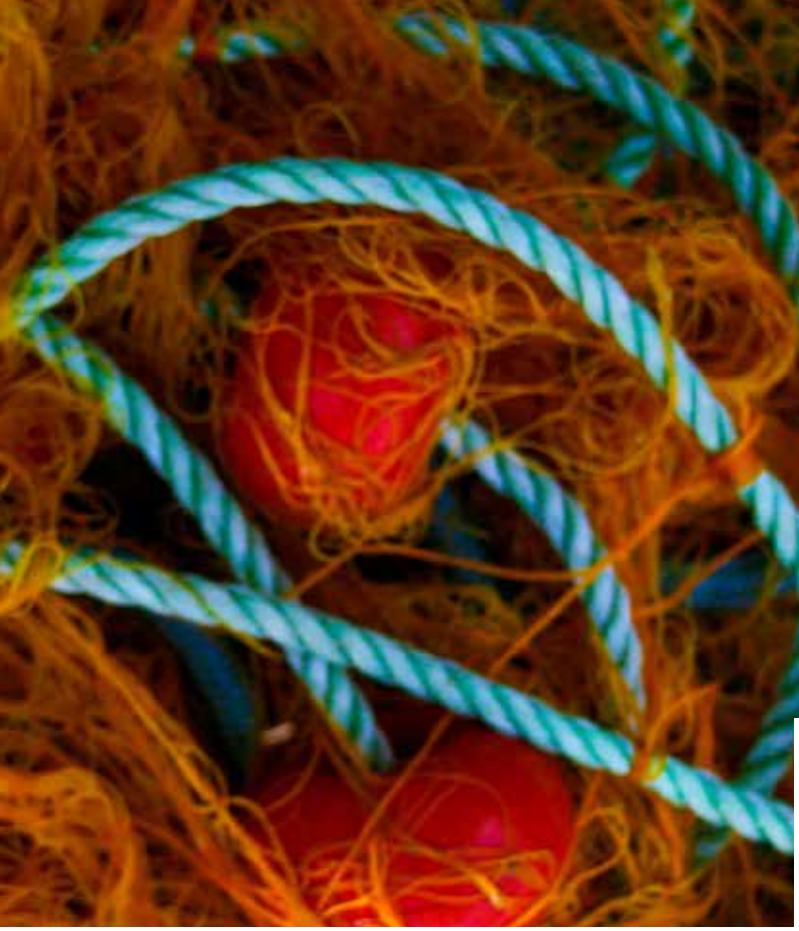

Extrovert economy

Crete

The above mentioned difficulties of the local economy: geographical isolation and limited resources, have favored the creation of an extrovert economy which has invested in the international and national marine commerce, in the exportation of agricultural products and in tourism.

All these extrovert economic activities allow the economic development of the island and offer local job opportunities sustaining this way the local population and avoiding the migration of the population towards the mainland.

All these activities rely on frequent marine transport and the operation and expansion of commercial ports, increasing this way the potential for marine pollution and degrading the marine environment.

Tourism can cause extra nuisance with the installation of hotels and vacation houses near the coastline and the touristic exploitation of beaches. These activities, if not controlled can cause the degradation of coastal and marine ecosystems.

Subsequently, in Crete, additional consideration has to be taken for the implementation of the Marine Strategy in order to prevent the degradation and pollution of the coastal and marine ecosystems from these economic activities, without undermining the local economy.

Corsica

Extrovert economy in Corsica is limited in tourism. Corsica has not really developed international and national marine commerce and exportations are very limited.

So, tourism is the major economical development axis, particularly in the coastal area and with an extremely high seasonality. This produces, for a short period in summer, a critical population increase with, for touristic cities, a population that is multiplied by 10. To respond to this summer anthropic pressure, infrastructures must be adapted such as ports, hotels, roads, parking lots, etc. To prevent environmental damages, water treatment plan, sewer system, organized anchoring plans, garbage collection (even on the sea), beach management, wetland protection plan, etc. must be also adapted. This kind of seasonal mono-development based on tourism generates very high public infrastructure and management costs.

To maintain the environment quality of Corsica and achieve the Marine Strategy target, these costs constantly adapted to the rate of touristic development must be funded.

Cyprus

The economy of Cyprus can generally be characterized as small, open and dynamic, with services constituting its engine power. Mainly affects the sectors of manufacturing, construction, real estate, business /services and tourism. The primary sector (agriculture and fishing) is continuously shrinking and only reached 2,4% of GDP in 2011.

The private sector, which is dominated by small and medium-sized enterprises, has a leading role in the production process. On the other hand, the government's role is mainly to support the private sector and regulate the markets in order to maintain conditions of macroeconomic stability and a favorable business climate, via the creation of the necessary legal and institutional framework and secure conditions of fair competition.

The impact of the crisis on the economy is mainly attributed to the deteriorating external demand, which mainly affects the sectors of manufacturing, construction, real estate and tourism. The deceleration of these sectors has had repercussions in the employment of workers in these areas of the economy.

A serious consideration should be taken for the implementation of the Marine Strategy in order to protect and preserve the marine ecosystem in a holistic manner from these economic activities, without undermining the local economy.

International waters

Crete

Crete is surrounded by international waters. For the implementation of the Marine Strategy Directive, Cretan authorities are responsible for the mapping, the monitoring and the protection of the marine area around the Crete island, but in practice the local authorities can only control the land based activities and some activities near the coastline (port activities, aquaculture activities, coastal fishing etc.). All other activities that take place off-shore (marine transport and fishing) cannot be controlled by the local authorities. Therefore, international agreements and police mechanisms are necessary in order to protect the marine environment.

Corsica

Corsica is surrounded by two important international marine commercial roads going from south to north of the western Mediterranean sea. The island is surrounded by a high traffic of commercial ships that increases every year. Ships transport quite everything from simple goods to oil or dangerous chemicals. The Bonifacio strait is an international corridor ruled by simple international regulations despite the fact that it is a very narrow dangerous navigation area very closed to the coast. Any accident in Bonifacio strait or along the corsican coast may cause irreversible environmental damages.

The implementation of the Marine Strategy Directive will necessitate plans and actions in order to established international rules that allows to regulate or forbid navigation for ships with dangerous loads when the risk of accident is clearly significant (Bonifacio strait for instance).

Cyprus

At present, the Vassiliko – Moni area is considered as an 'unofficial' mariculture zone. The designation of aquaculture zones is on the forefront of thinking by the Department of Fisheries and Marine Research, so as to mitigate problems and ensure a sustainable future for the sector.

The plans for the Vasilikos Energy Centre have given rise to other energy related investments in the same sea area. Cyprus the latest years has been embarking on hydrocarbon exploration in the southern area of its Exclusive Economic Zone. In 2008, the Republic of Cyprus launched a Strategic Environmental Study on the issue. The hydrocarbon sector is a specific sector in which Cyprus' neighbouring States have been engaged for decades and which could be an important future maritime activity for Cyprus.

The Energy Service completed in 2008 the preparation of the Strategic Environmental Assessment concerning Hydrocarbon Activities within the EEZ of the Republic of Cyprus, according to the provisions of the Assessment of Impact on the Environment from Certain Plans and/or Programmes Law, which is harmonized with Directive 2001/42/EC. However, placement of anchors on deepwater coral communities or chemosynthetic communities would represent a significant impact and should be avoided. Potential damage to shipwrecks or other submerged archaeological resources could be significant and should be avoided.

Overall, maritime transport is most intense in the southeast of Cyprus. In 2008, Cyprus had 247 ships in controlled fleet and 111 ships under Cypriot flag. Cyprus trade is mainly carried out through its multipurpose ports of Lemesos and Larnaca, the port of Vasilikos, and the oil terminals that handle oil products. Limassol is also an important cargo port, handling 4 399 000 tonnes in 2007. The main exports are cement and clinker and import of coal, petroleum products, and raw materials

Pressure on the island's marine environment has increased as a result of the expansion of mariculture, hydrocarbon activities, expected increase in maritime traffic, desalination plants and fisheries.

Cyprus is vulnerable to marine pollution incidents owing to the position of the country near oil transport routes. In order to combat pollution by petroleum hydrocarbons, the Department of Fisheries and Marine Research, as the Department responsible for the prevention and control the marine pollution, has acquired anti-pollution equipment, which is continually being upgraded. The Department has its own boats. The Department´s pollution combating personnel is properly trained and the unit constantly strengthened. A Contingency Plan has been elaborated.

Cyprus preparedness to respond to a major oil pollution emergency should be enhanced and ensure that its seas and coastlines are secured. They are of vital importance for the present and future generations, should be adequately preserved and protected. Further to this action, an emphasis should be given on training towards municipalities and communities that their administrative boundaries are closed to the coastline for immediate actions.

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CONCLUSION

The islands' particularities that have been analyzed in this document are present in all three islands participating in the MAREMED project (Crete, Corsica, Cyprus):

- Geographical isolation
- Limited natural resources
- Unique natural environment
- Extrovert economy, mainly seasonal tourism (sea and sun)
- International waters

These particularities put extreme pressure in the local unique coastal and marine ecosystems and make the implementation of the Marine Strategy Directive challenging.

All three participating partners conclude that their islands need extra funds from the mainland (national and European funds) according to the length of their coastline and the importance of their ecosystems and not according to their local economy and population in order to fulfill the demands of the directive.

Another common point is the necessity of stricter rules for international marine transport and fishing in order to be able to limit the potential of pollution in international waters.

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